

Aviation News

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Northrop's XB-35 Flying Wing: Four eight-bladed co-axial pusher propellers driven by four Pratt and Whitney Wasp Major engines power this big bomber which will weigh in at 209,000 pounds at gross overload conditions. Propeller farthest from the camera is six-bladed installed temporarily. Plane is expected to fly soon.

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Every Major
**UNITED STATES
 AIRLINE**
uses
Honeywell
 "MODUFLOW"
**CABIN TEMPERATURE
 CONTROLS**



HONEYWELL
 CONTROL SYSTEMS



CREATIVE ENGINEERING
 makers of the famous A-10
 Electronic Autopilot used
 on four-engined bombers

THE AVIATION NEWS

Washington Observer



FOREIGN OBSERVATION—Foreign war sections in this country are showing an extremely active interest in experimental non-military aircraft now under development. The French Air Ministry has followed all new aircraft developments closely, and the Russian Purchasing Commission is said to be watching all American aviation periodicals for new design announcements. Lately the announcement of a new airplane or helicopter design is followed by letters of inquiry from foreign agencies to manufacturers.

DC-6 JET?—The Army soon may point-a-pig a military version of a proposed Douglas Aircraft DC-6. Present indications are that Pratt & Whitney engines will be used and the plane identified as the XC-117. Army's DC-6 prototype consequently powered in the XC-112. If true, if made, will be significant in their indication of upcoming costs of a jet-powered commercial DC-6.

ARMY-Navy Race—Quite development of transonic research aircraft potentially capable of reaching supersonic speeds may become an Army-Navy race. Both services have projects under wraps and both are reported nearing completion. There are indications that Douglas may be first in the air with an ultra-speed plane. Douglas officials are saying nothing, but privately they have hopes of being able to beat Lockheed records.

AIR POWER STRESSED—Emphasis placed on air power by General Eisenhower in outlining the Army's program for the next 10 months was watched with interest in Washington for its effect on Congress. While aviation has many friends on Capitol Hill there are many there who do not understand the importance of the "full, free and open-minded" scientific research which the general urged. While he went into some detail in regard to air power his simple statement that "under current conditions and those of the predictable future the influence of air power cannot be over-emphasized" should be enough to convince the economy-minded skeptics.

FAC AIRCRAFT DIVISION—Replacement for W. B. Miles Vogelback as director of the aircraft division of the Foreign Liquidation commission will be Col. Paul Bousier. He served as Army director on the Pogue committee on surplus disposal and when released from the Army joined the Surplus Property Administration as a consultant on aviation surplus. He has been acting as consultant to Brig. Gen. James McMillan, aviation director of the War Assets Administration. It is reported that Gen. McMillan may leave War Assets unless certain differences between him and General Gouraud are dispelled. Gen. McMillan denies he plans to leave but changes in the agency have been frequent due to pressure from Capitol Hill.



New view of the Sikorsky S-51 Autopilot, first of its capacity (four-place) to receive a commercial license



Tire Tip from Alaska

"In our year-round operations throughout Alaska, we have found Goodyear tires give exceptional performance on our Douglas DC-3's under all weather conditions." A. G. WOODRUFF
President, Pacific Northern Airlines

Here is further confirmation of what airline pilots and airline operators know from long experience: Goodyear airplane tires give more

dependable service because they are built with maximum margins of safety that provide super-safety when the going gets rough—means longer wear under all conditions. Best proof of that is the fact so many leading airlines and airplane manufacturers specify Goodyear—the world's first choice in airplane tires, tubes, wheel tire brakes. For information, write: Goodyear, Aviation Products Division, Akron 16, Ohio, or Los Angeles 14, California.

GOOD
YEA
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PRODUCTS

It's a Goodyear tire trend.
Pacific Northwest Airlines uses this popular Goodyear tire because of its long wear in operations requiring relatively frequent landings.



Flying Wing May Hold Promise Of Revising Transport Designs

Test flight of Northrop XB-35 nears as one airline company surveys of commercial possibilities and others ponder future of fuselage planes.

By SCHOLER BANGS

John N. Northrop's gamble on his idea in the "flying wing," and the Army's mid-airline dollar gamble on Northrop, will be put to final test within three months.

By mid-June, if not earlier, the latest flying wing aircraft will be built at Northrop's Hawthorne, Calif., plant's X-35 hanger, spanning 172 ft. and weighing 162,000 lbs loaded, will be ready for its initial flight.

The "35" first of a series of 18 of identical dimensions ordered by the Army, has been moved out of its construction dock at Hawthorne, near Los Angeles, and during the next few weeks will undergo vibration tests, propeller adjustments, Army and company final inspection, and last tests.

Companions Coming Along—As the big wing begins test flights, two smaller aircraft will be in research commission within the factory.

A turboprop version will be the second to be delivered to the Army, and a subsequent model will be powered by propeller-jet turbines.

The prototype is powered by four Pratt & Whitney Wasp Major engines, driving four eight-bladed Hamilton Standard superhydrodynamic counter-rotating propellers having a face diameter of 13 ft. 4 in.

Reversible pitch will be used to reduce landing runs.

Future at Stake—Upon this plane the Northrop company has staked its "big plane" future . . . and the possibility of saving into the designs of the nation's commercial transport industry.

At least one major airline has made a complete engineering survey of the XB-35 in considering the company's proposal — although softened during the war years — that the wing offers marked advantages over conventional aircraft as a commercial transport.

Walter J. Conry, Northwest director of engineering, contends that as compared with a conventional aircraft of identical power, gross weight, and fuel load, a flying wing will carry 20 per cent more payload than in the form of passengers, cargo or fuel, travel one-fourth faster with an identical fuel load; carry one-fourth more load a given distance with a given amount of fuel, and travel "substantially" faster with the same applied power.

Pre-flight data indicates that the lift/drag ratio of the flying wing will be between 1.60 and 2.04-to-1 in contrast with a ratio of 3.0 to 1.0-to-1 attained by the most efficient

XB-35 Details

Here are overall specifications of the Northrop XB-35:

► **Dimensions** — Span, 172 ft. Root chord, 37 ft. 6 in. Tip chord, 8 ft. 4 in. Total height, 19 ft. L. in. Min. length, 10 ft. 6 in. sweepback, 57 ft. 1 in. Propeller diameter, 13 ft. 4 in. Wind area, 4000 sq. ft.

► **General**—Crew, 13 men. Empty load restricted, 10,000 lbs. Axle load, 10,000 lbs. Maximum fuel capacity, 10,000 lbs. Design weight, empty, 32,000 lbs. Design weight, loaded, 162,000 lbs. Overload gross weight, 200,000 lbs.

► **Power Plants**—Four Pratt & Whitney Wasp Major engines, one pair each of Series R-1830-11 and R-1830-21. Single-stage General Electric turbo-superchargers.

► **Propellers**—Four eight-bladed Hamilton Standard superhydrodynamic counter-rotating reversible pitch. Diameter, 13 ft. 4 in.

► **Landing Gear Group**—Tricycle type. Main wheels, an nose gear have diameter of 5 ft. 6 in.; single main wheel of 6 ft. 8 in. diameter. Gear fully retractable.

► **Controls**—Landing flap elevators for elevator and aileron function. Sliding flap mechanism at wing tips. Flap boost. Landing flap control surfaces. Control surfaces have "soft" or neutral surface operation.

wire-actuated brakes and transports.

► **Line of Construction**—Complies as



Clean Lines of the Flying Wing: One of the chief attractions of the radical design is apparent in this front view.

the XB-35 appears to be internally to one lessening the big plane's engine compartments, bomb bays, and pressurized central cabin. Northrop engineers insist that the aircraft is vastly easier to assemble, and less involved structurally, than a fuselage built up of component parts.

All American aircraft designer's engineering experience, it is quite likely that the XB-35 will lead to an early and insurance company can on the part of the California designer to permit airlines to think, in terms of safety, for a much larger version of the wing, possibly in the neighborhood of 350,000 lbs gross weight, and has enough to permit a fully-strength wing surface of maximum efficiency.

Reverence in "Hawks"—Should the air transport industry react as Northrop hopes it will, there is a strong possibility that the flight of the "35" may induce a sudden reversal of transport aircraft design, now so dominated by the following factors:

While a dozen small flying wing designs built by Northrop since the organization of his present company in 1939 have shown progressively improved control characteristics, the XB-35 will be watched closely by "airline" observers of both airlines and competing manufacturers.

Control of the XB-35 will be undertaken by three groups of faxes: **Centrally** located at the leading edge landing flaps.

Trailing the wing beyond the engine section are Northrop-designed "elevons," functioning as elevators and ailerons.

At the trailing edge of the outer wings are two mechanisms of the flap and split flap serving as drag rudders.

These controls are augmented at low speeds by outer wing leading edge slats, automatically closed at cruising and high speeds to eliminate wing tip stall.

Activation of control surfaces is by a full-beam hydraulic system, ratio which has linked a pneumatic "leading" device.

Wing Landing — Lightly loaded for test flight, the "35" will share in comparison with many military bomber designs, an extremely moderate wing loading. Its maximum takeoff of 4000 lb. per sq. ft. was, at an estimated cost of 20,000 lbs., a wing loading of 12 lb./sq. ft. At its maximum loaded weight the XB-35 has a wing loading of only 49 lb./sq. ft., and the future trim to only 32 lbs./sq. ft. for a possible overland gross weight of 200,000 lbs.



Crew Compartment: Within the center section of the XB-35, is the cabin for the plane's crew—two co-pilots, and six passengers.

History of Flying Wing Design

The beauty with which John Northrop has pursued his flying wing was design philosophy, despite discouraging setbacks from many other associates in engineering circles, is revealed by the following history of progress:

1931—Drew first flying wing sketches, considering the entire aircraft as a "working section."

1932—Bell first agrees to a "flying wing" mounting for a twin-engine aircraft, with the two engines being mounted under the wing, which earned a honored entry.

1932-33—The 1932 design was taken reworked, and substantially, by Eddie Bellanca, now president of Aeromarine Corp.

1933—Organized Northrop Aircraft Corp after securing contracts with Douglas Aircraft Company. While with Douglas he designed the first flying wing, a four-engine aircraft. After experimental trials the project was abandoned.

1934—Completed first tests of a turbulent fighter which showed promise of extreme speed but went out of control during test flight, killing Harry Crosby, test pilot.

In the direction of fighter wing development followed extensive free flight research in prone position piloting of wing gliders.



Little Parent of Big XB-35 John N. Northrop began working with the flying wing design as early as 1932. A two-engine version, the N-1-M, shown here, was successfully flown by Texas Street in 1940.

Boeing Announces Production of 417

The Boeing 417 transport has been entered into quantity production. Boeing Company chairman William M. Allen, Boeing president, announced the company's decision to enter into large scale production of smaller transport planes, a significant one in view of Boeing's reputation in the field of large aircraft—the B-17, B-29 and the 88-passenger Stratocruiser. (See Production Page 29.)

AVIATION CALENDAR

Mar 11-12—National Airplane Manufacturers Association Annual Meeting, New York City.

Mar 12—Preliminary flying wing design submitted to Army Materiel Board.

Mar 12—First flight of Bell X-1.

Mar 12—McDonnell Douglas Corp.

Mar 12—Strategic Air Command receives second B-52.

Mar 12—Organization of National Business Flying Club, Milwaukee, Wisconsin.

Mar 12—Subsidized Transport Service established, Washington, D.C.

Mar 12—B-52 first flight, Wright-Patterson Air Force Base, Ohio.

Mar 12—First flight of Douglas DC-3.

Mar 12—Institute of the Aerospace Sciences, National Light Aircraft Meeting, New York.

Mar 12—First flight of Bell X-1.

Mar 12—First flight of All-American aircraft, designed by National Aeromarine Association.

Mar 12—First flight of Bell X-1.

French Industry Unreceptive To Government's Export Plans

Poorly financed, and over-taxed with Federal officials, manufacturers resist program aimed at strengthening country's foreign exchange.

The French aircraft industry is reported this week as having without extension to the extortions of the Air Ministry that it produce for export. With ten competitive applicants set off the boards, without any agreement on what to do during the bidders of what it means, an unusually large number of government functionaries on the payroll, the industry's reaction is best described as one of passive radicalism.

While the government wants exports to build foreign credits, the industry has little to sell and feels that even if it had more, it could not offer its planes at attractive prices. It will be months before modern transports are available and while a number of transport types are in the market, such as the Sud-Ouest Mif 1000, being produced, financial considerations are used to stand in the way of mass production at a reasonable price.

Budget Defenders Hopes — It is an attempt to encourage large scale production that in turn would reduce unit prices; the government had promised to buy the lightplane output for resale, assuring manufacturers thereby of funds upon

which to operate. The recent political clash of the French budget, however, killed the project. Meanwhile, the industry has been largely immobilized and is not free to seek private capital.

Senate Ups CAA Deficiency Funds

The Senate last week took a \$694,948 allocation for operations of the Civil Aviation Administration between now and July on the second deficiency appropriation.

As passed by the House, the bill allocated \$1,048,860 for CAA, discrediting the Budget Bureau recommendation by \$353,840.

The Senate re-initiated funds for two CAA items:

¶ (1) It boosted an allocation of \$39,000 allowed by the House for general administration to \$48,000, so that CAA could move ahead with establishment of a pilot and performance staff and an aviation production statistics section.

¶ (2) It boosted CAA's allocation for maintenance and operation of air navigation facilities by \$14,466, those the \$10,000 agreed to by the House. Thus, the final CAA is to operate 34 Army range facilities located at Alameda and Santa Rosa, Calif., Las Cruces, N.M.; Colorado Springs, Ariz.; the San Antonio, Lubbock, and Midland, Texas; Santa Barbara and Salinas, Calif.; Blytheville, Walnut Ridge, and Douglas, Ark., and Winsted, Conn.

In addition, the Senate approved a \$306,000 allocation to CAA's weather bureau for establishment of five meteorological observation stations in the Arctic region.

The Agency has been pending since a joint House-Senate committee which will decide on differences between House and Senate allocations for CAA general administration, maintenance and operation of air navigation facilities, and Arctic reporting services.

Mitchell Wins Open

A wide selection of industry leaders has been invited to testify at hearings in Mitchell Hall, establishing an Air Power Board to determine methods of utilizing air power during peacetime, which start on Wednesday. The hearings are being held before a subcommittee of Senate Interstate Commerce Committee, headed by Sen. Hugh Mitchell (D., Wash.), author of the measure, in room 318, Senate Office Building in Washington.



U. S.-BUILT ICELAND AIR BASE:

The extensive nature of U. S. wartime airfield installations abroad is shown in this Army picture of the base at Reykjavik, Iceland, one of the first photographs of those outposts.

Lightplane Design Examined By AAFC

Five manufacturers enter competition for military liaison aircraft.

Consolidated, Vultee, Boeing, Piase, Bellanca, and Lingottinger-Groves have entered AAFC design competition for a light plane to replace utility and AAA escort airplanes for the ground services.

The industry as a whole was invited to submit designs of a plane which could get in and out of small ground areas at slow speeds, with maximum take to the pilot. Details of the five manufacturers already set under consideration at Wright Field. It was indicated no additional entries were expected. Chasing data was not immediately available.

Safety Features Included—Potentially noisy or all of the dangerous interplane safety features, such as two controls instead of three, braced truss of elevators to prevent while said open, and new arrangements of door flaps, and wings. It is listed that one of the designs may be fitted with a tail wheel, the other with an all-the-way tail. Lingottinger-Groves' design is reported to incorporate the most innovations.

AAFC is considering the competition designs in the light of suggestions recently submitted by the Civil Aeronautics Administration and Aircraft Industries Association, to the effect that common design features in military and civilian light planes would result in lower cost to the Army and to private purchasers, and would provide a large continuing backlog of equipment to draw upon in case of a declared emergency.

The suggestions were worked out in a meeting of T. P. Wilke, CAA administrator, John E. P. Murray, executive director of AIA, and other interested parties.

Civilian Potential—CAA expects a report from AAFC after a decision on the design competition has been reached, indicating the extent to which common features can be used for military and civilian purposes. Officials interested in the joint effort and the Army was cooperative, and some satisfactory results were hoped for.

Senate Approves Report On Federal Airport Bill

The Low-McCarran bill looking to a \$1,000,000,000 airport development program in the U. S. during the coming seven years last week

completed its last step in Congress when the Senate, by a 22 to 48 vote, adopted the conference version of the legislation.

The measure now needs only the Civil Aeronautics Administration can apply for a plenary appropriation to get the program underway. The measure provides:

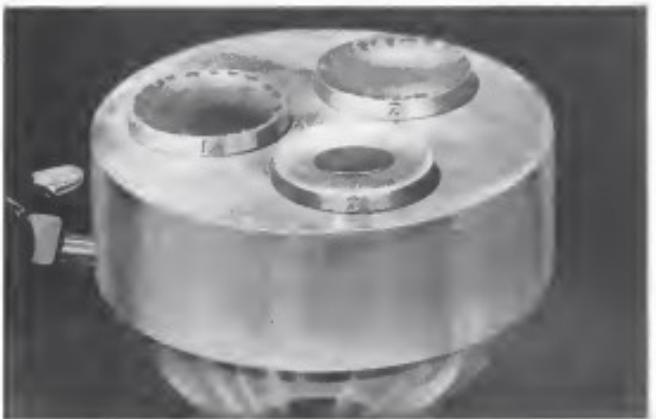
¶ A Federal expenditure of \$892,000,000 for airport construction in the continental U. S., generally to be matched by local financing.



NAVY AIR FIREPOWER:

Novel and most powerful aircraft rocket engine in the world is the powerplant capable of 1,800 pounds of thrust, developed by Reaction Motors Inc. in cooperation with the Navy Experimental Propulsion plant a camion propellant rocket engine of four cylinders each capable of 1,500 pounds of thrust. Empty weight is 210 pounds.





What happens when aviation oil is fried?

It all depends upon the oil — and notice how the oils in the dishes numbered 1 and 2 can't stand the heating they're going on this hot plate. They've run away from the hot spot ... boiled up into gas and varnish. In a motor, that means sticky valves, piston coated with carbon.

Now look at the RPM Compounded Aviation Oil in the third plate. Heat and air don't find in "RPM" leaves no gas and varnish to mess up a motor. And it works even better in engines because it contains a detergent (an cleaning agent) which removes old deposits, keeps engines clean. Other compounds in RPM Aviation Oil prevent corrosion, sludge and foaming, too, and make "RPM" cling to hot spots most oils have lost.

"RPM" is an oil without a weakness. That's why it will increase the time between overhauls, and give you happier air hours when you pit it for your own plane.

Two great products
of petroleum research

RPM
AVIATION OIL

CHEVRON
AVIATION
GASOLINE

take better care
of your plane

CHEVRON NATIONAL CREDIT CARDS
for private flyers are good at airports throughout the United States and Canada. Write Standard of California, 225 South Spring, Room 1815, San Francisco 20, California . . . or ask the Standard dealer at your field for an application blank.

STANDARD OF CALIFORNIA



PRIVATE FLYING

Simplified Radio Requirements Moving Toward Final Phase

CAA system of designating private pilot examiners likely to be followed by FCC in breaking radio bottleneck.

By ALEXANDER McSHEREY

Preliminary work toward simplifying the Federal Communications Commission's requirements for two-way aircraft radio examinations for the private pilot is moving ahead. It was started last week following a meeting of the CAA Non-scheduled Flying Advisory Committee with aviation engineering representatives of the commission in Washington.

While recommendations of the FCC staff are subject to action of the Commission before they go into effect, it is likely that completed proposals for several simplifications of existing regulations will be presented to the Commission in the next few weeks. The first of these, may be presented next week.

Principal Topic — The needed simplifications occupied the principal consideration of members of the Non-scheduled Flying Advisory Committee in their two-day session. Pattern for the new FCC recommendations is likely to be set by the simplifications which have already been made by CAA in private flying by dispensing private pilot flight examiners, factory inspectors and maintenance inspectors, from the aviation industry to assist the invited CAA inspector force.

CAA's earliest experience, thus far, with its dispensing from industry, has been in the office of the chairman, a similar procedure of designating persons in aircraft radio work to assist in the growing demand for private pilot radio licensing. One suggestion is that many of the private pilot flight examiners are qualified also to examine the pilot on his qualification for a radio examiner license. If the same examiner could handle both examinations, the simplification follows the applicant's standpoints, it obvious.

Further Suggestion — A similar shortcut is suggested in conjunction with CAA's annual inspection of aircraft. If the CAA-designated maintenance inspector at a local air

base was also qualified to check the aircraft's radio for FCC during his annual examination, another simplification from the pilot's viewpoint would result.

Current FCC requirements call for dropping measurements on each radio transmitter every six months. Another change contemplated would be to replace a frequency measurement at installation and eliminate later checks unless the operator had reason to believe that his transmission was wandering from the proper channels. This change may be the first to be considered by FCC.

Still another move now being studied is a simplified application form for the operation of a transceiver.

Small Staff — Currently FCC operates 30 field offices with approximately 30 examiners. With aircraft radios being reduced in price, and

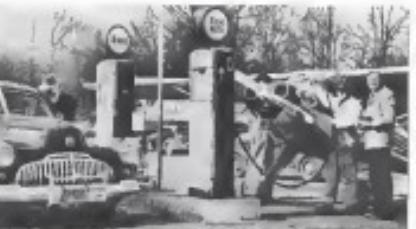
the need for two-way radio communications to the private flier growing as rapidly as the number of private flyers increases, it is not likely that the small group of examiners can handle the increased service if it is unhandled, or designees are named, or preference holds.

FCC officials are well aware of the increasing bottleneck which is likely to get more and more serious in the near year as production of low-ground radios for the private pilot remains. They have been studying means of meeting the position for some months, and the plans here outlined are the tentative results of this study, together with some suggestions from the CAA Non-scheduled Flying Advisory Committee.

NATA Appoints Frost

Jack Frost, former assistant manager of the National Association, will head up the new Washington office of the National Aviation Trades Association which will be located at 1245 Connecticut Avenue, Northwest. The office opened because of the unusual membership in NATA, will serve as liaison with government agencies for fixed base operators, and handle other Washington business.

The NATA Dispatch, a bi-monthly newsletter, will be continued under Frost's management and services to operators will be expanded.



PLANE-AUTO FUEL SERVICE

Emergency filling of Lockheed Silvers at recently at a highway filling station near Charlotte, N.C., offered a picture of what may be a common place in the near future. W. G. Hollingsworth operator of the filling station at U.S. Highway 28, fueled the Lockheed and a new Storch series from the same pair of pumps. Baseline landing strip adjustment highway filling stations are expected to offer additional service facilities for the private flier in many parts of the country as the number of private planes increases.

Piper Super-Cruiser at \$2,905 Seen as Long-Desired Plane

Greater performance, better styling and accommodations feature new, three-place version of popular model; company reports 5,000 orders.

A backlog of more than 5,000 orders for the Piper three-place Super-Cruiser Model PA-12, together with a few dozen PA-13s (Plymouth, Michigan), indicates that William T. Piper has produced as engine of the type that many flyers have felt is needed, and at a price they are willing to pay.

The new PA-12 resembles the previous Piper Cub Cruiser in basic lines of wing and tail, but is a revised and refined model with considerable gain in performance, and more attention in styling, passenger comfort and convenience.

► Navy Specification—Powered with a 180 hp Lycoming four-cylinder engine, the PA-12 travels 160 miles to the 180 hp H-1 Navy sentence plane built by Piper during the war. But the cruise speed is 18 mph faster than the Navy plane, between a top speed of 125 mph, and a cruising speed of 182 mph.

The private flyer waiting an airplane with a little more than the basic maximum usually offered him in the past, should like the careful attention to soundproofing in the Super-Cruiser. The engine has an overheat muffler, the cabin is soundproofed and light filtering windows help keep the clutter out of the cabin. A standard Delco-Remy

automobile starter and generator are used in conjunction with a 12 volt battery. The two seats are moved to the forward section of the engine, for greater maneuverability.

► New Styling—The Super-Cruiser has been streamlined at various points. A full-service sealing encloses the engine. The landing gear is equipped with rubber-cord shock absorbers located within the footrest under the front seat, and concealed in the landing



Flight Clearance. A 600-mile range and 182-185 mph. cruising speed are advantages of the new Piper PA-12 Super Cruiser. 180 hp three-place passenger plane shown is an unusual sight because photo shows

cabin with flat streamlined fairings. The steel wing struts are thinner and wider, and are fastened into the wings with aluminum snap cuffs. The two wing tanks, with a total of 30 gal. capacity, have been cleared up so whether air flow by use of aluminum cover plates, or wing tanks, is speeded or slowed by the pilot. The landing gear, with the pilot's front seat and a 36-inch rear seat for two passengers, remains the same as in the present plane. Plywood is used in the sliding windows and the one-piece windshield.

Control and instrument panel arrangement includes stirrup button on the panel and parking brake lever under right side of panel. Dual controls and hydraulic brakes are provided, with rear seat controls quickly removable. Instrument panel contains numerous instruments including altimeter, magnetic compass, indicator, ammeter, tachometer, oil pressure and temperature gauges. A mixture control with idle cutoff is provided. Navigation lights and instrument panel lights controlled by rheostat are standard.

► Super Baggage Space. Space for 41 pounds of luggage is provided in a compartment behind the rear seat, and a small door on the right side of the plane provides quick access to the baggage. Tie-down rings are provided. An all-weather accessible through-gear panel is available. This is a fully portable panel which can be removed from the Federal registration. Only contacts for state registration is to be a valid Federal certificate.

State coursers would be authorized to ground pilots, for reckless operation, at the discretion of the court, but not to revoke the Federal pilot's license.

The model bill would provide that every state and territorial legislature "shall endeavor to enforce" the aviation laws.

► Exemptions. The model bill exempt aircraft and pilots flying in interstate commerce, from state registration, and would recognize the CAA flight instructor's rating.



Piper Super-Cruiser. Production is now underway at Piper Aircraft Corp.'s Lockhaven, Pa., plant as the new three-place 180 hp Super Cruiser Model PA-12, which offers the private flyer a lot of airplane for the price, \$2,905. FAP Lockhaven Starter, generator, lights, dual controls, standard flight instruments are included, and it is understood the plane will shortly provide a Hallicrafters radio transmitter, as standard equipment, and still sell for less than \$3,000.

States, CAA Agree On New Model Bill

CAA the key principle of state participation in enforcement of safety regulations.

A new model state参政bill, following essentially the joint statement of policy issued in February by CAA and the National Association of State Aviation Officials, (AVIATION NEWS, Feb. 11, 1946) has been agreed on by the Federal and state agencies, and will be submitted to aviation industry representatives within the next few weeks.

It is expected a finally-approved model bill will go to the Congress July 1, and be introduced simultaneously. CAA-NASAQ sponsorship will be submitted to state legislatures meeting this fall.

CAA, meanwhile, announced that it approved in principle the policy of state participation in enforcement of Federal air safety rules and regulations by means of appropriate Congressional legislation.

► States Role. The Board also approves in principle the policy of state enforcement, through state laws, or penalties for recklessness flying within the state, if the state recognizes the Civil Air Regulations as the recommended standards for safe operation.

The Board further approved proposals for state authorities to assist in investigation and reporting of accidents to private planes within the state. Details of the state participation and clarifying authority to be exercised by state and Federal agencies is to be worked out in procedures, by a committee representing CAA, CAA-NASAQ and the Department of Justice.

► Bill's Objectives. Under the proposed bill, the states would license airports, airports and ground maintenance, and would register aircraft and drivers, if they chose, in addition to the Federal registration. Only contacts for state registration is to be a valid Federal certificate.

State coursers would be authorized to ground pilots, for reckless operation, at the discretion of the court, but not to revoke the Federal pilot's license.

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DETACHABLE WINGS:

New photo of Southern Aircraft's roadable plane. For use as a "Junkie," the wings and tail are detached.

without state licensing for flight instruction.

It is understood that, generally, state and Federal agencies are interested in a more widespread involvement of industry. The CAA model bill on accident rates would be cleared without Federal investigation by the state investigating procedure was uniform so as to provide uniform statistical data. A plan for training state police in Federal procedures of investigating and reporting aircraft accidents may be developed by the joint committee on procedures.

100 Private Aircraft In 'Breakfast Flight'

First postwar pleasure hop in California takes place at Palm Springs

Palm Springs, California desert resort, became an aviation showplace Sunday April 26 when more than 100 owners of personal aircraft joined in the first postwar "Breakfast Flight" sponsored by Southern California Flyers by the Los Angeles Junior Chamber of Commerce.

For the benefit of both flyers and resort residents interested in model aircraft were presented with specifications and general tags by the Breakfast Flight committee, and the details of landing places gave visitors a fine idea of the variety of war surplus aircraft now on the market in the guise of personal aircraft.

Benefits of the flight are direct contributions to aircraft manufacturers as well as airplane owners. The CAA offices were moved to New Haven from the previous location at Concord, M. H. Joseph Gurnee, Wiggins president, and the Boston Metropolitan Airport Corp. are negotiating in the building program.

PRIVATE FLYING — 15

100 Towers to Get VHF By June 1

CAA announces plan to add to 48 present installations of new communication equipment.

Forty-eight airport control towers now are guarding the 130-138 megacycle channels for commercial private flyers with very high frequency radio equipment and the number expected to be increased to 100 towers by June 1; T. P. Wright, administrator of Civil Aviation, announced last week. In addition, three other airport towers have receivers standing by on 130-137 megacycle channels, the Bendix radio division of Bendix Aviation Corp., reports.

The pilot can call the tower on his VHF transmitter and receive replies on his low frequency 400-440 kc receiver. A few ground-to-plane transmissions are now being made on VHF channels between 138 and 139 megacycles. Eventually all VHF receivers in planes become more common, the low frequency ground receiver will be discontinued, and two-way communication between planes and towers will be entirely on VHF equipment.

Broadcasting Br.—CAA lists the following towers as now standing by on 130-138 megacycles: Little Rock, Ark.; Oklahoma City; San Francisco, Calif.; Denver, Colo.; Washington (D. C.) National Airport; Jacksonville, Miami and Tampa, Fla.; Atlanta and Savannah, Ga.; Boise, Idaho; Chicago Municipal; Des Moines and Sioux City, Iowa; Kansas City (Furniture) and Wichita.

Dayton Production

Aerospace's new assembly line for hangars at Dayton Municipal Airport has been completed and recently, exactly one month after the firm signed a lease on the additional assembly space, the plane was an Aeromac Chief, state-of-the-art twin-engine aircraft.

In the first quantity airplane production in the town where the first Wright Brothers plane was built since World War I days when the old Dayton Wright plant was one of the largest in the country, Aeromac has leased the former modification center hangars at Dayton, to supplement production at its nearby main plant at Middletown, Ohio.

Airfield Shortage Troubles Northwest

Growth of private aviation in the Pacific Northwest is threatened by a shortage of hangar space and airfields.

Farrell E. Wood, Seattle, president of the Aircraft Owners and Pilots Association, recently led a round at commercial aviation in an attempt to gain access to two more west coast airports at Lake and Bonney, Wash., and said, "We don't care to operate the airports just so long as private flyers have the privilege using the facilities."

Seattle Aircraft officials announced the Bonney Field was still a "relief" operation although Northwest Airlines has confirmed arrangements that it is considering lease or purchase of the adjacent B-58 plant for use as a permanent headquarters and maintenance base.

Charges Bunker—Private pilots who use the Bonney field for anything except actual emergency landings are endangering themselves and others, according to Farrell E. Kingbary, Boeing superintendent of plant protection. When Kingbary and his plane arrived five times to land on the field, Wood commented on the statement he was taking all private pilots to help close off the Bonney field until authorized to use it.

Wood also said private pilots were charged \$1 every time they "shot" landings at Bonney, and being taxpayers should be entitled to use a portion of the field as much as the major airlines. A spokesman for the Seattle Port Commission said the field was primarily built for commercial use and once the field is operating the vehicle probably will include use by private planes.

Training Basic Moves

Importance of the San Francisco Bay area as an aviation center has prompted the location of the Aeromac Institute. Technical Institute's training base at Oakland Municipal Airport, it was announced last week.

The school, formerly at Glendale, Calif., will offer as flight training but is scheduling technician courses for veterans as well as civilians. Opening date will be announced later.



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*Most successful campaigns in the flying field are high speed and highly instrumented campaigns on the new Martin two-engine transports.

Military-type Test Given Voyager 150

An accelerated service flight test program, similar to that used by the AAF in new types of military planes, is being carried on by Consolidated-Vultee test pilots at San Diego, with the four-place Johnson Voyager 150. It is believed to be the first test of its kind on a personal-type plane.

The plane, flying at relays, operating at three different continuously as an effort to log 800 flying hours within a few weeks time. The idea is to determine what service and maintenance problems a private owner will encounter with his new Voyager 150 in a year or two of ordinary flights.

The plane makes two landings per hour, one on land and the other on a hard asphalt runway. Using full power, it makes two climbs each hour to 1500 ft. Flying at maximum except for stops for routine maintenance and refueling. Data on engine performance, instruments, tires, brakes, master controls, propeller, landing gear and other components are being compiled for engineering study. A fuel consumption of nine gallons per hour for the 130 hp Franklin six-cylinder engine, at 125 mph, cruising speed has been recorded.

The majority of the steady flying schedule is planned specifically for the pilots by the radio procedures available through the direct head-to-head communication in the Voyager 150, one of the first production planes to have such an arrangement.

Hughes Turns Down Bid To Produce Rockets

Hughes Aircraft Company has decided not to manufacture the Johnson Rocket 115 personal plane. Frank W. McDonnell, Hughes general manager, announced last week from Culver City, Calif.

McDonnell said that his company was approached on the subject of manufacturing the Rooster, but had decided against the proposition. Neither has suggested any Howard Hughes has expressed a preference for any plane in the private aircraft field, he added.

At Ft. Worth, Johnson Aircraft Co. officials said three representatives of the Hughes company had visited the plant recently for discussion of a proposal to build

Briefing For Private Flying

July 26-27 have been selected as tentative dates for the second annual private flying conference (NAAZ-sponsored) to be held at Milwaukee, in conjunction with other aviation activities at this summer's Milwaukee Centennial celebration. Most of the two days will be devoted to flying activities centering at the downtown lakefront Milwaukee airport. Air-marketing, local flying conditions and boycott of airports that charge landing fees will be discussed subjects. A flight from Milwaukee to another airport for a picnic, and a dinner are also scheduled.

JULY 1 DEADLINE—Civil planes which have not yet had their annual inspection, must get it before July 1, if their owners wish to continue to fly them. T. P. Wright, CAA Administrator, has issued his weekly "Flights which have not passed CAA inspection within 12 months prior to the present date, will be grounded as non-airworthy, and owners and/or operators will be subject to penalty under CAR Section 8122 if they are flown without inspection. Inspection must be made by a CAA inspector or CAA-designated aircraft maintenance inspector, following a periodic 100-hour inspection by a certified A & E mechanic. The inspection requirement was to have been made effective July 1, 1943, but a year's grace was given because of wartime difficulties.

REVIVE PAUL SEXTON CLAN—Plans to revive the post-war Paul Sexton Clan (Michigan speed group) for the Michigan state air fliers in June and September are being prepared by Wayne J. Sheldon, tour director. A new and revised crop of tall tales about the famous legendary Michigan woodchuck is in the making. Sample: Paul didn't bother to see an axe to chop down the Michigan forest. He did it with the help of his little helicopter, used bare-knuckled fashion!

PAPER SCUT READING—Experimental performance is reported for the new experimental four-in-five place low-wing Paper Sky Sleder, in its early test flights, according to a Lockheed viewer. The plane is not expected to be ready for production until 1947, and in all probability will sell for considerably more than the \$2,000 announced as a "target price" for it, about 16 months ago. (Aviation News, Jan. 28, 1945). At that time the plane was described as powered with a 135 hp. engine, with manually operated retractable landing gear, and with a 125 mph. cruising speed. This speed has been increased considerably in the prototype now flying. Construction was all-metal except for fabric wing covering.

ENCOURAGE ON PARADE—Entrepreneur James Perry, Greenville, S. C., president of Oldsmobile Aviations, showed off his company demonstrator to advancing troops when it stood alone in the place of honor in the annual Baseball-Governor Day parade. Gov. Eugene F. Wilson rode in the Perry, with Perry as chauffeur, through downtown Greenville streets and out in the hill park, where the Governor's wife and the opening bell for a game between Greenville and Columbia. Tandemly it was a banner day for the Encroome and the Governor than for Greenville, which lost the hill game. —Alexander McMurtry

the Rooster, but that they had no word as to a decision on the discussion.

Worcester, Mass., NAA Unit Elects Pitch as President

Milton L. Pitch, Worcester, Mass., advertising agency head, has been elected president of the Worcester chapter of the National Aviation Association. Pitch, an aviation enthusiast, pilot, has own plane on business trips.



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INTERSTATE BY REPUBLIC AIRLINER. TO RIDE IN AIRLINER WITH GREATEST RANGE AND SPEED... AND STAYING POWER.
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"Esso is on the beam!" says "BEVO" HOWARD of Hawthorne

"As an airport operator I've taken a keen interest in the development of aircraft engine fuels and lubricants. And I feel Heathrow is a really 'on the beat' using Esso Aviation Products. Because it's been my observation that you can depend on Esso for many trouble-free flying hours...the kind of hours that any of us the way down the line from scheduled

carries to light planes. So our hook-up with Eso is a natural. But when you add the valuable sales experience and expert advice of the trained Eso representatives, our reasons for being dealers in Eso products become even clearer. For Quality, Dependability, Service and Customer Satisfaction, It's Hawthrone and Eso! ■■■



Ronald E. "Ron" Roush has many claims to fame - at 21, he became the nation's youngest police officer, or as he says, his first and most noteworthy law enforcement position. In the 11 and 17 years he has been responsible for the training of over 2000 police officers across North America. He is President of Ron Roush Training Services located in South Carolina at Northwest Field and Jennings Airport, Oviedo, Florida, at Orlando and Tampa Municipal Airports, Clearwater and in North Carolina at Grand Strand Regional Police and Firehouse.

Earo—a pioneer in aviation—has logged over 40 years continuous aviation experience dating back to the first flight at Kitty Hawk. Today Earo maintains the world's largest petroleum research laboratories to insure the high quality and dependability of all Earo products... on sale at over 500 airports in the 22 states indicated on the map.

PRODUCTION

Shortage of Materials and Parts Threatens Shutdown of Industry

are supply of fabric belt particularly by lightplane producers. The lack of aluminum seriously hinders deliveries by manufacturers of military aircraft.

Composed out of strikes in some industries, pricing policies, associated consumer demand, the changing situation and uncertainty suggests as to the future of the aircraft industry, a material and parts shortage. Variables seem parts of the industry with a shut-down and almost certainly will delay finalization of present schedules.

Most critical items are fabrics, which affects chiefly the lighting manufacturers, and stations, which in showing production of military models (Advanced News, April 29). Fibers is the most difficult problem of the two, and the one

which will take longest to solve.

New York Mustang—At a meeting in New York City last week called by the Aircraft Industries Association and attended by representatives of the East Coast manufacturers, one major day was de-

...to the fabric shortage (See *Deadline News*). Main cause of the labor situation is the decrease in production as that industry, allegedly because of OPA pricing. In addition to these factors, the short-term bedrock of the aircraft industry is linked to the non-military economy.

ing completion, in a small
twelve-story office building
in Los Angeles by Gilbert
Magill, president of Roto-Crest
Corp. It will be situated at
1000 S. Flower St.

Avalanche, Gang 'n Housing—The problem of homelessness is more complex. One factor in the recent strikes, Avalanche workers went with the usual weapons. That made various layoffs in reserves. Another aspect is that in that situation, too, the street-life industry is in the position of bidding to a certain extent against non-violent demands.

Alternators are being produced in great quantities for prefabricated housing manufacturers, and generators of extensive trailers. A limited number of these units are now in use.

orders placed by other industries. Shortly before the New York meeting, however, Alcoa representatives indicated a renewed interest in aircraft business and that some of the material shortage may shortly be alleviated.

Withdrawal of Suppliers — To some extent, the aluminum shortage results from a feeling shared by some suppliers to the aircraft industry, that the industry's future production will not be large enough to warrant continued exportation in excess of aircraft parts and aircraft.

Many of the industry's wartime upholders are returning to their pre-war, non-aviation products. During the war several new aircraft types were developed which manufacturers would now like to anticipate in planes. But often, these items were turned out by only one company which now wants a larger market than appears practical to meet.

Helicopter Outlook

ng a full of nearly a
Court helicopter
should begin blossoms
series of test flights
five days during
summer months.

Hiller, Jr., may test a model of his first two-seater design, the "A," built at Glendale, Los Angeles. Fred is close to the flight his second experimental, developed under contract. Another Army helicopter approached him in a small plane recently developed by Gilman student of Rotax-Craft will be identified as

Compressed Air Cylinder's Undercarriage Feature

A package-unit undercarriage fitting a rubber cylinder filled with compressed air as a shock absorber is being marketed by Firestone Aircraft Co. for use on aircraft weighing less than 3,000 lbs.

The main feature, the shock absorber, relies upon a spring-like rubber cylinder containing compressed air. The cushioning is

inal impact of lending. Banks of Boston material act as brakes in restricting borrowing. The lending guaranties are telegraph tubes, oil valves, and no packing glands.

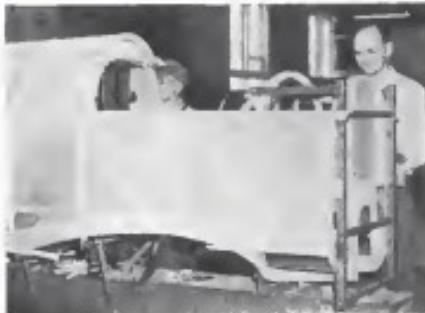
\$90,000,000 Backlog Reported by Boeing

Rebuilding its production from war to peace market, Boeing Airplane Co. had a backlog at the end of 1945 of \$90,000,000—with more orders in sight—in comparison to 1945 sales of \$421,175,817, President William M. Allen reports to stockholders.

However, the backlog as built buyer the two-thirds majority Boeing's retains are for 60 C-97's (the current B-29), 10 C-97's (ordinary transport version of the B-29), totaling \$65,000,000, and for six Stratocruisers (commercial version of the C-97) which will yield \$25,000,000.

There three airplanes constitute Boeing's production at the present. However, the Model 417, 30-passenger derivative, may enter the picture. A mockup of this aircraft is now in the Boeing Wichita, Kan., plant, where production will be undertaken when decided by the board of directors. The new fighter, XPB-1, developed for the Navy too late for service in the war, is undergoing tests by the AAF at Wright Field and its sales possibilities cannot be estimated.

Present Production at Seattle—



Last Target Plane: Frank Lehman, work manager, is shown taking the last strapping on the final Culver T2CC-2 (PQ-14) fuselage at the Wichita plant.

All of Boeing's current production is concentrated in Seattle, where employment had dropped 35,000 by VJ-Day and was not back to 5,000 by the end of the year. This figure is expected to be doubled in 1946.

The company's 1945 sales fell below the previous year's \$683,463,380, reflecting the end of the war. Net earnings were higher in 1945 because all profits were transferred to netted number. Profit in 1945 was \$10,000,000, or \$4.00 a share, while in 1944, profit was \$12,251,522, or \$4.65 a share. In 1944, \$4,000,000 was provided out of profits for reserves.

Allen revealed in his report that Boeing is relinquishing all the Government-owned facilities it used in wartime, with the exception of 386,000 square feet in the main plant at Seattle. Acquisition of the area and machinery and equipment is expected to cost approximately \$3,000,000.

Civilian Production Seen Soon at Culver

Culver Aircraft Corp., which last January produced one-third of all military aircraft made in the country, will be the first TEC-CO (factory version of the Army PQ-14) in the year 1946 at its Wichita plant just week completion of the Navy contract marks the end of production of the famous radio-controlled target planes.

Culver started work on radio control in August of '40 when the

plant was located at Columbus, Ohio. It became the sole producer of PQ planes during the war and designed several models, each with increased speed and utility, for radio-control. Total production ran up to several thousand. The planes were used as targets in train aerial and anti-aircraft gunners.

Completion of its military contracts from the company's production facilities has enabled what T. Bowring Woodbury asserted in "an ever-increasing backlog of orders" for the new Culver Model V, which features single-Ply Control. The unique model now is undergoing CAA tests for approved type certificate.

Bell Orders 500 Engines

For Helicopter Installation

Further indication of early volume production of helicopter by Bell Aircraft Corp. is seen in the announcement by Aerocraft Motors, Inc., that Bell has ordered 500 Franklin helicopter engines, delivery to be completed early in 1947.

The engines, of a new design developed especially for Bell helicopters, will be installed principally in rotorcraft for commercial and industrial uses. A few, the engine company says, will be used in craft for the AAF.

The engines for Bell are based on the Franklin which during the war powered biplanes for the Army, Navy and Coast Guard. They are air-cooled, non-cylindrical, approximate engine cases developing 112 hp at 3,000 rpm. They are mounted vertically within the fuselage, and cooled by an engine-driven fan. The starting arm for the Bell Model 47 (Aviation News, March 25).

Three Buffalo Engineers Form Own Plane Firm

Three former Buffalo engineers have formed a new company, the Fairchild Corp., of Buffalo, N. Y., to produce three-place private airplanes of their own design. They are George White and Lester Fero formerly in the Curtiss-Wright engineering department, and LaVerne Banks, formerly employed by Bell Aircraft as its engineering experimental and production department. Total authorized capital stock is \$100,000.

The firm is now at work on a mock-up of a plane of conventional design to be powered by a 100-hp engine and to sell below \$5,000.



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WORLD'S LARGEST BUILDERS OF FIRE-RESISTANT AIRPLANES

\$600,000 Plant Expansion Set by Solar Aircraft

An expansion program extending construction and alteration of buildings to cost an excess of \$600,000 has been announced by Solar Aircraft Co., San Diego, Calif. The facilities expansion, planned for some time, has been negotiated upon a recently granted extension for 30 years of the company's lease with the city for its waterfront site.

Tuck T. Odham, vice president and secretary, stated that the program will result in a substantial increase in employment over the company's present monthly payroll of \$350,000.

Two new buildings will be erected, one to cost more than \$300,000, the other costing for an expenditure of about \$250,000. Another phase of the expansion is the acquisition and remodeling of two hangars at Lindbergh Field used during the war by the Royal Canadian Air Force.

Thompson Products Tells Work on Jet Propulsion

Revelation that Thompson Products, Inc., Cleveland, Ohio, manufacturer of aircraft engine parts

and valves, has been a key producer in the development of turbine wheels for jet propulsion engines has been made by the company in a news bulletin, "Jet Propulsion."

Thompson's work has been chiefly in the perfection of methods to work the extremely hard alloy steel necessary for the blades or buckets of the turbine wheels due to the rigorous use of heat and to cost required improved technology.

The metal costs several dollars a pound, the company explains, as compared with about four cents a pound for ordinary steel and 50 cents a pound for alloy heat-treat considered expensive. The average metal casting is considered satisfactory, it is stated, if it is accurate to one-thirty-fourths of an inch.

New Generator Revealed

A compact, 13-cylinder generator to operate electric turbines and indicators has been announced by the Kollsman Instrument division of the Space D Co. Named the "Compu-Generator," it operates a three-phase tachometer of standard, sensitive or dual type.

Canadian WAC Sells 52 Surplus Aircraft

Canada's War Assets Corp. during March sold 32 surplus aircraft, three aircraft for salvage, 25 engines and some equipment, for a total of \$168,811. Aircraft sales to end of March were \$1,202,186.

Sales included five Northrop Nomads at an average price of \$14,000 each, and three Canadair C-112s each. Nomads went to Yukon Southern Air Transport, Montreal; Musketeer Air Service, Montreal; Johannesburg Flying Service, Winnipeg; and C. A. Johnson, Prince Albert, Saskatchewan; and White Fish Lake, Big River, Sask.

Other Sales—Two Canadair CT-114s ambulances were sold to Northern Miner, Vancouver; 28 Avro Anson IV aircraft went to Aircraft Industries of Canada, Montreal, for resale outside Canada; one Lockheed 10A to R. Kastner, Kansas Point, N. Y.

Surplus machinery went to two airplane manufacturers, Nordair Aviation, Montreal, purchased machinery in their plant for \$442,076, which originally cost \$307,491. De Havilland Aircraft of Canada, Toronto, bought used machinery in their plant for \$25,362, which originally cost \$74,373.



STRATOCRUISE FUEL TANKS:

Although this specially-created nylon fuel cell for a Boeing Stratocruiser holds 265 gals when placed in the wing of one of the new air giants, it can be rolled into a six-inch masking tube. The pleated, extremely tough nylon fabric, with protective coating, provides even greater safety than the conventional fuel tanks,

but since some 1,400 lbs. is the total weight of the 47½-in. dia. Stratocruiser, Glore-tape fasteners, and a two-ply glass fabric liner, hold the tank in place within the wing. The Stratocruiser can be completely fueled with 7,633 pds. of gasoline in but ten minutes, flying experts



Airlines are Standardizing with Simmonds on Electronic Fuel Gauging

With an established record of successful operation on both sides of the Atlantic, the Simmonds Pacitor Gauge is being installed as standard equipment on the giant Douglas DC-6, new luxury airliner, and on the converted C-54's joining the fleet of American Airlines System, and Northwest Airlines. It is being specified also for advanced types of Army and Navy aircraft now being built by Martin, Fairchild, Grumman,

and Consolidated-Vultee. In addition to the installation cited, four airlines are now in the process of finalizing their Pacitor requirements for future equipment.

Greater accuracy and reliability under all conditions have made it the first electronic fuel contents gauge to be adopted by U. S. airlines, and the first to mark the White Dot of acceptance by the U. S. Army Air Forces.

These are the reasons why engineers prefer the Simmonds Pacitor Gauge:

It measures a mass of fuel over all ranges of temperatures and basic specific gravity to within 2% accuracy.

It has no moving parts except in the indicators. Once installed, it requires but a minimum of service and maintenance attention.

Its reliability is unaffected by changes in flight attitudes, or in temperatures.

It measures from absolute top to bottom of tanks, over the complete range from "Full" to "Empty."

It is easily adapted to any type of aircraft, whether new or use as to design.

Find out more about this advanced fuel monitoring system. Learn why engineers everywhere are beginning to "Standard-

ize with Simmonds." Write for a complete description and engineering information. There is no obligation, of course.

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• Hydraulic Accumulators • Hydraulic Pumps • Spark Maps • Testbenches and Clamps of Specialized Design

PERSONNEL

TACA Airways Names Three New Officials

TACA Airways has announced several new appointments. **Donald E. Wood**, left, has been named executive assistant to **John R. Richards**, vice president and general manager of the airline. **Richard S. Moore** has been appointed controller.



general manager with headquarters at Tegucigalpa. **Louis C. L. Hardwick**, right, formerly of the ATC, has been appointed director of operations for the carrier. Before the war he operated a freight and charter service at the Pacific Northwest area.

United Air Lines has made several new appointments. **Kenneth J. Mc Bride**, photo, becomes auditor with headquarters in the Chicago office. He succeeds **Conrad Blanck**, recently elected managing director of the company. **Liam Herring** has been named



places manager in Chicago for United.

A. Y. Meyer has been transferred from the San Francisco office to assistant manager of the key San Francisco station. **John J. Fausett** has been named manager of passenger service for United at New York, succeeding **Ron Parrott**. Replacing Parrott as manager of passenger service at Chicago is **M. E. Isaacs** who has been at Cheyenne. **James A. Weisse** returns as terminal traffic and sales manager of United at Newark. **John W. Anderson**, who has been acting district manager, will remain as assistant to Weisse.

John J. Fuqua will take over the duties of advertising manager for Hushhush Manufacturing Corp.

Fred W. Bogardus, senior advertising and public relations director of the Marine Minded Group, Inc., has been appointed assistant political editor of the Bell Aircraft Corp.

Donald G. Petrie, executive assistant to the midwest region general manager for TWA, is leaving for Dublin where he will be engaged on a temporary basis in Aer Lingus Technical Brief Air Services. His purpose is to assist the Irish airline company's traffic management. Petrie has been with TWA since 1956.

Daniel Schaeffer, formerly with Roger Aircraft Importers, has joined the Elcoast Co., in charge of production control.

Henry B. Drapke has been named service manager of Brush Aircraft Corp., which has been in aviation since 1931 when he joined it in Ed Wachita Aircraft. He then became a supervisor at the Flying Aire, a Brush aircraft division. Drapke will have charge of all service and repair on products manufactured by Brush and will continue to be responsible for the flight test.

Carl H. Astman has been made president of the American School of Aircraft Instruments and the American School of Watchmaking. Los Angeles Astman is also a vice president of Techno-Matic Corp.

Sidney Howell, who resigned as president of American Overseas Airlines Inc., has been made assistant to **Gen. Lewis H. Brereton**, deputy commander of Commandant's Office, charge of public health and welfare activities. Howell resigned at the request of the Secretary of War.

H. J. Borchert has been appointed manager, aircraft equipment section supply department, General Electric Co., Little Toronto. In 1959 and 1967 Borchert was the Webster Trophy winning pilot in the racing category. He has been in the RCAF and

was a prisoner of war.

St. Jude Sherman has accepted as Assistant Administrator of the Civil Aeronautics Administration for Aviation Training and **Beverly W. Staelin** has been appointed his successor. He has been associated with the CAA's post-war flight training program in the nation's schools and has been in the Navy. Staelin joined CAA in 1942, serving in air education activities and has been assigned to the head of that department.

Appointment of the first executive committee of an recently organized Air Transport Division has been announced by the American Society of Civil Engineers. Committee members are **Alfred A. Bryn** of Boeing, chairman; **Horace Shulman**, St. Louis, vice chairman; **David S. Jenkins**, senior airport engineer of CAA in Washington; **C. J. McCarthy**, United Aircraft Corp., East Hartford, and **George W. Dyer**, Atlanta, who has distinguished himself added to heading unchartered divisions of the Society.

Charles Wiesen, former district traffic manager of Mid-Continent Airlines at Kansas City, has been named to the new post of regional traffic manager of the airline, with headquarters in the same place. Before joining the Navy, Wiesen was in charge of the Minneapolis district as traffic manager.

Ray B. Whitney, formerly of the Navy, has returned to Chicago and Southern Air Lines as administrative assistant to the traffic and sales departments. Whitney has charge of personnel and liaison of the Naval Air Station at Lake City, Fla. Whitney was chief clerk of traffic section at Memphis before joining the Navy. He will now be responsible for preparation of budgets, personnel needs and administrative procedures.

William J. Morris was named treasurer of Colonial Airlines Inc. He was formerly treasurer of Cheshire and Northern Air Lines. **H. Heinrich Sprang**, who resigned as a member of the Civil Aeronautics Board, was elected assistant vice president to the Columbia-Peterson Corp. in Washington. Officers elected at the annual meeting were: **Howard Jones**, president; **Edward S. Edley**, vice president; **Donald T. Dykes**, vice president in charge of traffic; **John P. Alford**, assistant treasurer; **Donald L. Johnson**, director; and **Charles O. Holloman**, general manager. Directors are: **James Holloman**, Dykes, **Wall R. Bassett**, **Frank Hartley**, Jr., and **William M. Mayle**.



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Latest achievement of the men who engineered the P-51 Mustang...

The *Avion* combines handling characteristics, speed, range, payload, and economy unequalled by any other 4-place personal plane. The extremely simple landing gear minimizes conversion to and from a *Mustang*.



For details about the advanced performance, low safety - cost per ... and appealing features offered in the *Avion*, write: **North American Avion, Inc.**, Englewood, California. *Avion* delivery starting in June.

Designed and built by...

NORTH AMERICAN AVIATION INC.

The **STANDOUT** on the Nation's *FLIGHTLINE!*

Silvaire stands out with distinction on flight lines all over America. Its gleaming ALL-METAL beauty catches the eye. Its rare, unique construction attracts attention immediately. **SILVAIRE** is a smooth, fast, no-fuss, no-maintenance, no-worry aircraft...crucial at 105 miles per hour; jet lands slowly and easily on the weakest fields. High-wing construction gives full visibility. Its SAFETY-ON-THE-FLOOR cabin gives maximum protection. Operators and maintenance costs are held so low a minimum—costs approximately the same per gross ton as a medium priced car. Beautifully appointed with roomy, deeply upholstered seats and plenty of baggage space, the **SILVAIRE** is the plane you'll be proud to own. See your **SILVAIRE** dealer today and ask for a FREE Flight demonstration.



Safety-line training makes strength and safety the strongest strength of members in business during the critical stage.

All life has mostly converged
—> evolution over a long time
against trying to fit the linear
natural language & this category
category seems to work

All life has mostly consisted from
—“I am here now & will always exist
—and there will be the following
usual feelings & this, safety and
affection, peace, health, health,

out of Boston and University and life insurance companies, although no right was retained by it in 1901, and has remained at Belmont since 1912. Open houses at Belmont and at the Yachting and Boating pavilion by New York dealers in these pleasure craft, dealers and the family themselves have been present from time to time. The 1901 Yacht Show at Belmont is probably the best remembered by us, because it was the first. The average cost per visitor of the early Yacht Shows at Belmont was \$2.50, and many who were in a position

LUSCOMBE AIRPLANE CORPORATION
DALLAS, TEXAS
FIRST IN All-Metal PERSONAL PLANES

AVIATION NEWS • May 6, 1995

FINANCIAL

Improvement of Equity Positions shown by 1945 Airline Reports

stantial options to company officers noted, with Smith's less significant; Pullman report seen as warning that railroads tend to snap up competition for passengers.

derable betterment of security positions is another salutary feature at both annual review dates. The improvement resulted through earnings and is set in the accompanying table.

substantial increase at \$1.14 in Western Air Lines' par-
ticipated primarily from the
issue of additional capital stock.
\$7,153 shares were sold
ultimately brought the com-
pany to \$117,440.

PCA issued \$10 million in welfare debentures during 1943, none was without some measure of protection of the owner's equity.

Equity Unaudited--TWA's sheet at December 31, 1945
\$10,000,000 indebtedness

presents the initial drawings for the \$54,000,000 credit obtained from an insurance company for the purchase of the Cawelti. However, this debt is convertible into stock and the credit will not subsequently reduce the present equity. If anything provides greater leverage, the company's earnings

not worth or equity pre-
dicted to some significant
The preferred stock was in
terms of being converted into
common stock.
In addition, 2,000 shares
of agreement stock were issued
as convertible for three
years after the year 1980.
This is a fairly standard
method of financing the
of the common stock pre-
issuance. As of the end of
December 31, 1984, there
were 150,515 shares in addi-
tion 180,000 shares which will
be added by exchange
agreement stock. In other
words, there will be 330,515
shares of \$1 par value and
1.625 shares at \$22. A substantial
percentage of these options see
however to be held by R. L. Richardson,
president of the firm.
United Air Lines has options for

IT shares exercisable at \$11 per share by an officer. PCA, TWA and Eastern also have option plans outstanding permitting their officers to receive stock as substantial discounts to existing market prices.

New Phase Commitments—The annual reports also reveal the nature and future commitments for new equipment.

increased consumption purchases creating sales \$10,000,000 over one-year period ending in 1945. In this amount, \$4,000,000 is expected to be expended during this year. The company is preparing additional public financing through the issuance of preferred stock and debentures. Since \$10,000 is expected to be raised this year in this manner. The one-for-one common stock split recently completed is a measure designed to facilitate the marketing of new capital issues.

While Eastern has ordered the series 300 and Lockheed Constellations, no dollar amount is indicated for future passenger commitments. It is believed that Eastern will require additional financing to chase this arm equipment.

No official plans have been announced as yet but the company's ~~corporate~~ stock split-up is undoubtedly initial preparation for future capital raisings.

Even the straightforward information and helpful data to the stockholder, the American and United Airlines were the most complete and detailed. The PCA account, while containing bold graphs and charts, was largely superficial and significant items were lacking. Nowhere in the report, for example, is there mention of revenue or expense per revenue mile—key measures in evaluating the progress of any airline. Most comparative financial and operating ratios would have been far more useful than almost meaningless historical data presented.

Bureau Report Warning - An annual report which should urge the interest of the airline industry is that issued by Fulcrum. Significantly, the company "Understatedly, the safety factor will play a potent role in future compensation for passengers because by the various commercial operation agencies with Fulcrum still far in the lead in safety performance." It is clear the radio intended to stress in an effort to offset the speed economy factors offered by the railroads.

Airline Equity Positions		Net Worth (\$ in millions)
	1947	1948 % Increase
Boeing	1,000	1,000 0.0%
American	400	500 25.0%
United	200	200 0.0%
Eastern	100	100 0.0%
Trans World	50	50 0.0%
Delta	40	40 0.0%
Southwest	20	20 0.0%
Alaska	10	10 0.0%
Other	10	10 0.0%
Total	2,160	2,160 0.0%

SPECIAL AIR SERVICES

CHARTER NON-SCHEDULED INTRASTATE

N. C. Intrastate Line Gaining Popularity

Operations of DC-3 on non-scheduled round-trip basis produce added revenue.

By S. T. HENRY

"No reservations required." It is at the airport 30 minutes before scheduled departure."

The announcement at the top of the new timetable issued May 1 by South East Airlines, Inc., Charlotte, North Carolina, interstate scheduled airline, has won widespread comment from the trade's press, and is paying off in added revenues. The announcement applies to South East's 21 aircraft, of which 12 are Douglas DC-3s. Since the day he began his new newspaper business almost from the day it was placed in service, April 8, Capt. Gifford also has increased steadily.

South East began operations last August with a four-place Convair, which continues in service. Considered that a lessee would pay, operating nearly 400 miles out and west, the length of North Carolina, W. C. Tagus, president, and his brother Earl, vice-president, set up the new organization. Both had served as test pilots for Constellation-Vultee.

► **Flights of Radiance**—From the start the two brothers planned their own place in the industry. They knew they were pioneers; the news was there was plenty of feeder and intrastate business to justify at least one large plane. It was some months, however, before they could convince those with the necessary capital to back them. Now, hardly a month after the DC-3 started service, there appears plenty of traffic to justify a second such ship.

South East operates six DC-3s on a full-half circle that extends from Charlotte in the heart of the industrial section of the state to Washington on the Atlantic Ocean. Ships are made at Winston-Salem, Greensboro, Raleigh-Durham, and Wilmington. All of these fields have paved runways and regularly by Eastern and National.

► **Non-Scheduled Daily**—Two scheduled round-trips are made daily on



DIRECT CARGO LINE!

Three of the five executives of Stick Airways, new non-scheduled air cargo service, are shown in this new photo at the company's headquarters at San Antonio, Tex. Left is right are F. A. Warren, vice-president-operating, Earl A. Stick, president, and Dennis J. Dunlap Jr., executive vice-president. The company, an affiliate of \$1,210,000 in cash, has already been paid in, will soon have 10 Curtiss C-46s. Commodity transports certificates by CAA for cargo

this route. Two hours and ten minutes is required for a one-way trip. The permit encompasses all cities and adjacent territory to return home at convenient hours of the same day.

South East also operates in Georgia on two scheduled round trips daily from Asheville in the mountains at western North Carolina to the coast. Two routes are followed in both directions. These routes and those of the DC-3 serve 19 cities, which have no other plane service.

► **Catering Services**—Scheduled connect with intra-state lines including Delta, Pennsylvania-Central Eastern, and National. Tom K. Gerber, vice-president-catering-service, was formerly with Pan American maintenance staff.

At present, only daylight flights are made. All planes are, however, equipped with two-way radios and night and blind flying instruments.

► **Radiance Meaning**—Local newspapers and local Chambers of

Commerce in the big United publicity and support to the service rendered by South East. Where interest was lukewarm at first, transmission to local communities that the venture could be successful. Since the advent of the DC-3 service local enthusiasm has picked up rapidly. The best promotion for this service, however, has been the schedules arranged to meet local needs.

Group Sets Flights To Sport Shows

New York company schedules tickets to events with all travel reservations.

Round trips by air to leading sports events are being presented by a newly formed agency—Canyon Air Enterprises, New York. Canyon has contracts to blocks of seats in most important sports events and includes one with each event trip ticket sold.

Heading the agency is Lou Klein, well known in sports circles.

► **Future Events**—The agency does not expect to own its own aircraft, but will operate with planes chartered from non-scheduled carriers. Service will be limited to all important events the next year being the Lenox-Horn heavyweight bout. Overall price to the fan will be fixed but it is expected to include a \$30 seat.

For the first such event covered, two DC-3s were chartered from International Airlines. Newark non-scheduled operator, by raising fare from New York and Chicago to Louisville, Ky., for the Kentucky Derby, charge from New York, including fare and a meal served each way was \$75. From Chicago, \$82, plus 15 percent tax, after cost of the ticket was deducted.

► **Ticket Charge**—For the Derby, Canyon gave its patrons a choice of a general admission at \$3.50, or a clubhouse ticket which \$8.15, either of the same overall price of \$17. Fred Spitzer, handling Canyon's publicity says a large percentage selected the lesser priced general admission, although it actually raised the cost of their transportation, increasing the amount remaining to be taxed at 15 percent.

Spitzer called attention to a radio ad in connection with the Derby, organized in Chicago by a tourist business which charged \$10.40 for the round trip, including an upper berth each way. The Canyon transports

were scheduled to take off at 9 a.m. the evening of the race from Chicago and slightly earlier from New York. Passengers will be returned home by about 7 p.m. the same day.

Bucket Seat Service Reported Success

Howard Davis and Harold Goldstone of Boston, who started non-scheduled passenger and freight service recently in Delta Airways, with a dressed-up C-47 and up-holstered bucket seats, are ready to answer the skeptics now.

They consider that the operation, most of it between Boston and Miami at fares above the scheduled carriers, may now be termed a success and have added two more C-47s, which are being converted at Walnut Creek, Calif., into "bucket seats" (increasingly adjustable-seats) and are negotiating for two more which will give the company a fleet of five Douglas Davis and Galluses are also shopping for at least one C-46.

They report their bucket seat airplane carries more passengers than could be carried on the two weekly trips between Boston and Miami. They were collecting \$300 round-trip for the northeast trip, and \$40 southbound. Most recently, they lowered the fare on the \$24.75 charged by Southern Air Lines, Inc., which had driven the Miami operation and office. "Weekend" expenses were very near to Mexico City, with departure from Boston every 16 days.

Davis and Goldstone insist they can keep the passengers happy in bucket seats. They have had meals and service, card tables, seats and food seating chairs for a passenger occasional use.

Meanwhile, other developments in non-scheduled operations were reported. Atlanta Airways, Atlanta, Ga., is operating intrastate passenger flights between Madison and Superior, via Milwaukee. Other stops will be made at Clarksville, Winona and Sioux City, according to J. J. Moles, general manager.

► **Wisconsin Central Airlines**, Clintonville, Wis., is operating intrastate passenger flights between Madison and Superior, via Milwaukee. Other stops will be made at Clintonville, Winona and Sioux City, according to J. J. Moles, general manager.

► **Great Circle Airways, Inc.**, New Orleans, has been organized by a group of former Army and Navy pilots as a charter freight line operating "in any point from the Gulf to Canada."

► **A. Mississippi Airlines**, Commission, with full authority to regulate intrastate airlines, is prepared to commence air service by a bill passed by the state legislature almost without debate or opposition. The commission will consist of three members, one from each express court district, to be

Canadian Services Mushrooming

An increased number of license for non-scheduled air services is reported by Canadian Air Transport Board, Ottawa, including government operations. Among such names created in 1946 is the Department of National Health and Welfare, of which Dr. Howard F. Evans, Minister of National Health and Welfare, is in charge. The department is carrying passengers to and from bases of Regis and Prince Albert. This is an emergency substitute service for outlying areas to give transportation to people living far from the nearest town. A Douglas Monocoupe, equipped as an ambulance plane is being used.

Two airline companies at Port Williams, that which to date has had no commercial air service, have been awarded to a group non-scheduled operators. Canadian Air Transport, a Douglas, is carrying passengers on scheduled service for later. They are Superior Airways Ltd., using Canuck, and Air Service Lines. A flood base of bases, east charge rates for carriage passengers or goods on an hourly or mile rate for the complete capacity of the aircraft. Operators who want to offer an "airline" service must have a license to operate a non-scheduled service from a fixed base between specific points. A non-scheduled license fee general liability to airplane operators for each route, and enables the operator to charge rates on a "per passenger" or "per pound" basis.

Approved by the government and endorsed by the carriers, is the first non-scheduled carrier to begin operations. A director of administration would be appointed who would be required to have at least five years service experience. He would serve as executive officer.

Coast Growers Likely To Resume Shipments

Western produce brokers this spring are expected to resume experimental air shipment of perishables to eastern markets.

Gates air freight division and the managing number of non-scheduled companies owning C-47s and C-54s which can be chartered to reach any market area, will result in an intensive study of shipping methods needed to assure maximum losses in time and freight.

► **U.S.A. Shippers**—An early indication of the expected surge of fruit and vegetable shipments of perishables was given in San Francisco last month when the produce firm Frank C. Mandelbaum and Co. chartered a United Air Lines plane to ship 150 crates of asparagus to Chicago. Mandelbaum reported that the shipment cost amounted to about \$6 per crate on the basis of United's charge of 15 cents per ton-mile for a \$3,000-B. container shipment.

The shipper said his first interest was in determining the best handling for asparagus, but indicated that extensive fruit shipments will be made in the near future.

HOUSING CAN COST TOO MUCH

EVERYONE in the United States wants our people, and particularly our war veterans, well housed quickly. Almost everyone, we believe, likes the vigor and imagination with which Wilson W. Wyatt, the housing expediter, is going about the job of mobilizing our housing resources.

No one, however, wants the veterans, or anyone else, to get a lot of severe economic headaches along with the housing. As it stands, the emergency housing program runs unnecessary risks of having such results.

Here are the reasons:

1. The principal opportunity the program offers to the veteran is that of buying a high-cost house where a chance to rent would, even then, not net much-needed rent better.

2. At the worst possible time, the program adds substantially to the dangers of a runaway inflation of the sort that inevitably ends in a crash.

3. Little is done to try to reduce the absurdly high costs of building, such as those resulting from restrictions imposed by labor unions and antiquated building codes.

4. By giving overriding priorities to unaffordable goals of home construction, the program endangers a volume of industrial construction necessary to sustain full employment.

Needs of Veterans

First on the needs of the veterans. What many, if not most, veterans need is a chance to rent a place at a reasonable rental while they are getting shaken down in their postwar careers which in many cases are inevitably unsettled at this time. Essentially, what the "Veterans Emergency Housing Program" gives them is a chance to buy, for about \$4,000, a house built along conventional lines and packed with much unnecessary labor and material cost.

But what are the alternatives? There are at least two. One is to put far more emphasis on more effective use of existing housing than the Wyatt program has thus far. The other is to see that the proportion of new rental units is much stepped up.

Incredible as it may seem, there are at present more than 3,000,000 vacant dwellings in the United States. Many of them should be demolished. But many profitably and relatively satisfactory temporary use. Many more single dwellings can readily be converted into comfortable multiple dwellings. The emergency program assumes that only 250,000 dwelling units can be

provided this year by these expedients, but it does not seem unreasonable to assume that this figure might be doubled by a vigorous drive. The result would be a better balanced emergency housing program, because it would provide more rental housing immediately and save critical building materials.

Of the new housing units contemplated by the Wyatt program, it is estimated that only about 20 per cent will be for rent. Below the war more than half of the houses in the United States were rented. That means that unless the Wyatt program is to create little less than a revolution in the terms on which houses are occupied, it must be revised to include a much higher proportion of rental units.

To secure the result in the face of present high building costs special inducements will be required. They might be provided by allowing accelerated tax amortization of, say, half the construction cost over the next five years, together with rent ceilings high enough to make this form of investment attractive. This would, of course, call for higher rents, but the actual price to the veterans, in use as well as money, might well be much less in the long run than if he bought an unoccupied house now.

Too Easy To Pay Too Much

One of the mysteries of the Wyatt program is its general emphasis on incentives to increase the supply of money with which to buy houses when the demand for houses is already at an all-time high. Some veterans may need special financial help, but the plan to give 30-50 per cent mortgages generally on new houses is not only unnecessary but positively dangerous. By providing up to 30.5 billion of government-guaranteed credit for homes this year, and almost twice as much in 1947, the program will release an equivalent amount of individual savings to create further demand for goods and services. All that starch preserves mortgage terms will accomplish with certainty is a dangerous lengthening of the odds that we will not avoid a boom and bust cycle of inflation.

If building codes were brought up to date and arbitrary union working restrictions were eliminated, the way would be paved for reductions in the price of standard houses which, it has been estimated, might run as much as 20 per cent. This would both give the buyer of a new home a due better run for his money, and also reduce the inflationary pressure created by the super-generous credit arrangements involved.

Getting anything done along this line is difficult, particularly because the restrictions are imposed by tens of thousands of separate localities and organizations. Some headway is being made. The local emergency housing committee being set up under the Wyatt program provides a means of doing much more. For more steam must be put behind that aspect of the program, however, if its greatest potentiality for permanently constructive accomplishment is to be realized.

Crippling Essential Industrial Production

The goals set for emergency housing construction—1,200,000 new houses started this year and 1,200,000 started in 1947—are higher than any qualified authority thinks can be met without crippling other essential construction. The reasons commonly assigned for such optimistic goals is that they are supposed to draw in the industry and sooth it to those who want something tremendous done about housing.

Under normal circumstances, relatively little damage might be done by such excessive goals which are a common feature of most Washington programs trying to elbow their way to the center of the national stage. However, the emergency housing program carries with it top priorities for the materials to be used. Consequently, other essential construction will have to get along on whatever share of critical building materials will be left after all demands of home builders have been satisfied.

The Cecilia Production Administration estimates that output of important materials will fall far short of needs. It foresees a 15 per cent deficit in lumber, 10 per cent in brick, and 82 per cent in iron and steel. Hence, unless building materials output can be stepped up to more rapidly than now seems possible, a prohibitive squeeze will be put on industrial building to provide the materials needed for the Wyatt program. This would complicate unmercifully the problem of sustaining full employment and getting the flow of production to expand in meeting the boom and bust needs.

Perspectives on the Housing Shortage

What is needed is an aggressive drive to get full production of building materials as rapidly as possible. Such a drive should concentrate on measures aimed at helping the industry remove the obstacles to all-out production rather than on such measures as the subsidy plan which seems quite likely to result only in enriching the industry in more government controls. After making due allowances for the materials outlook and the needs for essential non-housing construction, housing goals should be set as high as feasible. As norms are set, by setting construction goals before finance material goals are determined, the surt is put before the horse.

There can be no doubt about the seriousness of the housing shortage and the necessity of a program

commensurate with the magnitude of the problem. It also remains true, however, that the housing shortage for the nation as a whole is not quite as desperate as those who want the country to drop everything and go to building houses would have us believe.

During the war 3½ to 4 million new dwelling units were built or created by remodeling in other than farm areas. The number of families living in such areas increased by less than 3½ million. Even though some of this housing was located in remote places as an adjunct of war production works, the wartime increase permitted a margin for more housing per family at that time. Indeed, it has been estimated that the rate of doubling up is only about one-third as great as in 1940. The margin did not begin to suffice, however, to meet the needs of those millions of people particularly in the lower income groups who, thanks to rapid increases in income, can afford to have and insist upon having better housing than they have ever had before.

A rising standard of income which makes possible a new standard of housing for many people is a fine thing. Above all, it is important to see the veterans get the best possible break in housing.

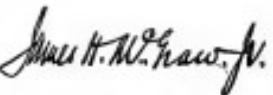
Bad Housing Can Cost Too Much

The Wyatt program has many good features. The emphasis on prefabrication, though perhaps over-optimistic, is hopefully sound. The emphasis on local collaboration in solving housing problems which are inevitably in large part local should lead to permanently valuable results. The vigorous mobilizing of 100,000 temporary dwellings to meet at high speed some of the most desperate shortage is all to the good.

The main trouble with the program is that it does not pay enough attention to the economic havoc which may be created in the process of trying to meet its excessive goals. As a nation, we should be and are willing to pay a high price to get adequate housing. But the price will be too high if we:

1. Give the veteran a bad bargain by selling him an over-priced house.
2. Cripple industrial production needed to create good jobs for veterans, and
3. Touch off a disastrous inflationary sequence in the process.

These pitfalls can be avoided. All of us, including the veterans, have a common interest in seeing that they are avoided.



President, McGraw-Hill Publishing Co., Inc.

This is the 4th of a series



Leisurely comfort is provided in many Stratocruiser berths

Slumber in the sky

Here's restful sleep for air travelers! Above the world in a peaceful sky full of stars, aboard a smooth-rolling Boeing Stratocruiser.

Long, deep, comfortable berths with smooth linens and soft blankets... and sleep at just the right pressure and temperature at any altitude.

Passenger will be able to reach almost any destination overnight, flying across the United States, both to London, Moscow, Stockholm or Shanghai in more than 3 hours a round trip.

By early 1957, such flights will be a regular feature of travel. Stratocruiser, engineered with the same rugged dependability as the Boeing B-52, is now being built by Boeing for major airlines.

In deeper versions of the Stratocruiser, berths are 7 inches wider, a inches longer than in a standard sleeping car.

There are separate large dressing rooms for both men and women. And a lower-deck lounge for relaxation until passengers are ready to retire.



The Stratocruiser—more than a liner

The Stratocruiser's unequalled speed, comfort and reliability will make it available on these forward-thinking airlines—Pan American World Airways, Soviet International Airlines, Northwest Airlines, American Airlines—for which Boeing is building three of these super transports.*

Soviet International Airlines, Northwest Airlines, American Airlines—for which Boeing is building three of these super transports.*

BOEING
STRATOCRUISER

TRANSPORT

NWA Signs Cargo Agreement With Railway Express Agency

Entrance of rail-owned company into air freight field studied by airlines for implications as to future development of cargo business.

Railway Express Agency, whose air express agreement with the airlines long has been in controversy, has extended its activities into the relatively-new field of air cargo through an agreement with Northwest Airlines.

NWA and REA have filed with CAB a special cargo tariff, including pickup and delivery, to be effective June 1. Based on 36.7 cents per ton-mile, and without commodity classifications, the new tariff on 100-lb minimum shipments complements an air cargo rate structure which had put lagas to settle down.

Although the terms of REA—with its long experience in pickup and delivery—are recognized, first question by some spokesmen for other airlines was that this will be the lowest ever in industry standards by the railroad. Railway Express' proposal will be given in the air cargo field.

Other Airlines — Some comment from one air cargo specialist: "This will make the other airlines bad. It's hard to conceive of an air carrier expecting REA to develop air freight business when the agency is railway-bound and has a competitive operation of its own."

Through its Air Express Division, REA already is an air carrier, though without the right to fly its own equipment. The roles of the first air freight tariff are definitely those of an "intercarrier," referred to themselves as Railway Express Agency, Inc., with the additional specification that shipments will be carried by Northwest's aircraft.

Comparative Tariffs — The new REA-NWA tariff compares with a straight tariff, not including ground handling, of 26.5 cents per ton-mile quoted by United Air Lines and a similar tariff by American effective April 25. TWA's other large cargo carrier among scheduled airlines, has a tariff without pickup and delivery and with different commodity

base (41.4 cents per ton-mile). The air freight, which is derivative cargo, will be handled on a straight pickup and delivery basis, with a considerably air-mail rate quoted when no passenger is on the flight.

Other airlines which handle their cargo as a straight airport-to-airport charge with pickup and delivery rates of 25 up to 35 and 40 cents per 100 lbs do not compare with REA.

Cargo managers on these carriers point out, however, that many large shippers prefer to handle their own pickup and delivery, while REA's tariff leaves no choice. Also, it will be high in relation to United's special commodity rates out of the northwest on fruits and vegetables. That is 15 cents per ton-mile on shipments from California, Washington, Oregon and Utah, to Denver and the east.

United also has 22 DC-3s and is acquiring some 23 DC-4s, but so far no passenger transients. Railway Express sees the 100-36 minimum shipments under the new tariff will be handled on regular passenger flights for the present, but if volume justifies DC-3s may be converted into all-cargo.

Contract Details — Under the five-year contract whereby REA will furnish local pickup and delivery service for Northwest, the Agency will pay the airline 20 cents per ton-mile after deduction from the gross revenue of payments for advertising.



CONVERSIONS IN ALASKA:

These C-97s are part of them being converted to airline use in Alaska. *Advertiser* photo at Anchorage. Four of them will go into cargo operation in the near future.



TUDOR II PRODUCTION SPURRED:

Steps are being taken to speed production of the Avro Tudor II, Britain's latest transport plane, shown here during recent test flights (AVIATION NEWS, April 4). Tests were deemed successful by the Ministry of Civil Aviation.

the minimum premiums and less dangerous charges for transportation by carriers other than the contracting parties, nonallowable revenues and other items mutually agreed upon. The express company itself will receive \$2 per shipment, whatever the size or distance. Remuneration revenues or deficits will be shared equally.

The payment of 26 cents a ton-mile is conditioned on remittance of at least the 26 cents per ton-mile rate. If it fails below, as many of other lines reduce their tariffs, payments to Northwest by TWA will be reduced accordingly, to a maximum of 18 cents per ton-mile. If that margin cannot be maintained, Northwest may cancel the contract.

CAB sources with whom the agreement was tied cite it as another way of doing what American, British and TWA are doing with the trucking companies who handle their freight pickup and delivery. **TCAR Hardline**—The TWA-TWA arrangement has one hurdle to mount before it can become effective. CAB can reject or suspend the tariff on certain of its own or completed by another carrier. If suspended—probably for 100 days—bearing would be put off until which the Board might either reject the tariff as above or it becomes effective at the end of the suspension period. The Board also could disapprove the agreement.

Microfilm Proposed

A proposed resolution in CAB requires the monthly service to photograph all old records and, as approved by the director of CADA-Kansas City, to substitute microfilm for the original documents has been circulated to the industry.

Pilots' Duty Hours Held Not Excessive

ATA representatives see no need for major revisions in existing flight time regulations.

Representatives of the Air Transport Association and CAB safety officials last week threatened existing Civil Air Rules which provide automatic suspension of an air carrier's flying rights and grounded against further reductions in duty hours which would encourage the growth of "feather-bedding" and expense unoperational and financial burdens on the carriers.

Testifying at a hearing called to discuss the relationship between maximum hours of duty and safety in air carrier operations, ATA officials said that medical data indicate no instances of pilot health impairment during the 30 years under present regulations.

They denied that new planes, including the DC-4, Constellation, DC-6, Stratocruiser, Lockheed Martin 290 and 390 and Consolidated 340 embody improvements over the DC-3 which will materially benefit pilots' working conditions. Consideration of those improvements, an ATA spokesman continued, leads to the conclusion that while the new aircraft may be heavier and faster there will be no increase in pilot stress.

AAF experience in operating similar equipment was cited.

Only change recommended by ATA in present rules had been made in an alteration in certain CAA by inserting the proviso of Part 41 that are necessary to enable domestic carriers to provide long-range service with suitable aircraft.

Post Office Pushes Action on Airmail

Software will ensure that effort is being concentrated on lower rate and parcel post.

The Post Office Department called for immediate action on two phases of its airmail program of a meeting with major air transportation last week, and asked the carriers to aid in their expeditors.

Gael Sullivan, Second Assistant Postmaster General, declared at a conference between the airlines and Department inspectors who are surveying airmail conditions and prospects that effort is being concentrated on a 5 cent postage rate for air mail (now 8 cents) and establishment of air parcel post rates.

Legislation for a cent airmail should be moving faster than it is, Mr. Sullivan said, expressing the hope that it would be a "matter of days" until such a rate was a reality. Loss of revenues through the reduction, he feels, will be offset by increased traffic. On the other hand, he anticipates a lack of support, although the Department will fight for it "vigorously and in the open." He expects air express interests to attempt to delay his effort.

Helicopter Service—The official's interest in helicopter service to serve communities near large cities with mail pickup is well known, and he told the airlines that surveys of possibilities along this line have already been made at Los Angeles, New York and Chicago.

He believes in addition to these, Detroit, Philadelphia and Boston should be considered for mail pickup. Possibly he expects to see helicopter mail service inaugurated at Los Angeles before the end of the year, but he emphasized at the meeting that he expected augmentation of helicopter mail pickup and delivery through regular CAB certificated, rather than as a Post Office Department experiment.

Airlines Interested—A spokesman for Air Transport Association commented that the airline industry was much interested in the undertaking and would like to be consulted. The scheduled carriers have the feeling, he added, that such a service would be not only complementary, but supplementary.

Airlines represented included American, American Overseas, All American Airlines, Chicago and Southern, National, Pan American, PCA, TWA and Varig.



The word is spreading:
*"Flying is the way to travel
 and **TWA**—the way
 to fly"*

Three Specialists Added To ATA Operations Staff

Three new specialists have been added to ATA's Operations Division staff. William B. Becker will work on Civil Air Regulations; H. L. Roberts as air traffic control, and Martin A. Warkow as airport and approach lighting.

Becker spent three years in CAB's General Counsel's office, where he specialized in CAB. Roberts spent six years with American Airlines. He was with CAA nearly seven years, but has three in charge of flight regulation, tower, and with PAA, six years. Warkow, formerly head of the Airport Lightline Unit of Navy's Bureau of Aeronautics, is working on a program for installation of high intensity lighting at major airports.

Decision on Any Action In NAL Case Due Soon

Any steps the Justice Department may take in prosecuting National Airlines for "wilfully" violating the Civil Aeronautics Act, when it acquired control of Caribbean-Mexican Airlines (Avianca-Nova, March 18) probably will be known within a month.



TWA'S LAST ATC FLIGHT:

Concluding its wartime Atlantic assignment for the Air Transport Command, TWA recently sent the above crew on the line's 9,500th and last transocean flight of its contract. Left to right, Capt. C. G. Miller, First Officer Carlton Reed, Flight Engineer William Watt, Navigator Doug Bell, and Radio Officer Hank Brown. At extreme right is M. G. Bowen, chief pilot of TWA's Intercontinental Division.

CAB, after sharply reducing National for its violation, referred the case to the Criminal Division of the Justice Department under Section 962 (a) of the Act. This section provides for a first offense fine of not more than \$500, and a fine not exceeding \$3,000 for any subsequent offense. If the violation is a continuing one, each day of offense constitutes a separate violation.

If the Justice Department decides to prosecute, and should a conviction be obtained, the case will be the first in which the maximum liquidation have been imposed for violation of CAB's economic regulation.

Examiner Recommendations NWA Route Merger

Northwest Airlines moved a step closer last week to achieving its plan for the fastest non-stop coast-to-coast service when CAB Examiner F. A. Law recommended consolidation of the carrier's three routes AN33, 43 and 60. Law made his recommendation and submitted the case directly to the Board for decision immediately after a hearing at which Northwest's application was unopposed.

Integration of AN 3 with 43

Navy School Moved

Navy's four-engine transport line maintenance training unit is being shifted from Douglas Aircraft Co to Cal-Aero Technical Institute at Grand Central Airport in Glendale, Calif. Training is open only to Naval Air Transport Service personnel.

Benefits of Merger Cited By Monro

Northwest Airlines last week was presented by C. Reddell Monro, PCA president, as a small regional carrier with limited resources, using an increasingly crowded and ultimately losing fight with American Airlines and Eastern Air Lines for the only relatively traffic-rich route, New York-San Francisco.

This competition, Monro told CAB examiners at the PCA-Northwest memo hearing, will become progressively more severe as American and Eastern acquire additional equipment and develop hub-powered sales programs. He advised that Northwest, in its effort to maintain its position on the New York-Baltimore route, would do away with its leases and equipment that the full potential of the rest of its system could not be realized.

Would Aid Competition—Merger with PCA, Monro said, would not only permit effective competition with Eastern and American between Boston and New York, but would, because of greater resources, open the way for complete development of Northwest's less-traveled routes. Integration of the two systems, he continued, would effect important economies in operation, create substantial new traffic through new one-carrier service between cities of the merged system, and offer savings to both the traveling public and the government.

Monro estimated the traffic be-

would remove the necessity for looking at Minneapolis-St. Paul and would enable Northwest to request New York-Seattle and New York-Portland non-stop, both well within range of the two Boeing Superfortresses ordered by NWA.

Besides the possibilities for transcontinental non-stops, Northwest officials declared that increasing congestion at the Twin Cities terminal of AM 49 makes flights over that point desirable on some schedules. Savings of between \$12,000 and \$15,000 annually is seen,

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tween PCA and Northstar which would be developed by the manager and service to the surviving company during the first year after merger would be approximately 20 million passenger miles, yielding \$900,000. He stated that PCA proposes to apply its present date of 4.65 cents a passenger mile to Northstar's system with resulting savings of approximately 20 percent between nearly all Northeast cities.

Stock Arrangements—The proposed stock exchange of one share of PCA for two shares of Northstar was made at a price of \$1.50 per share with the market price. The book value of Northstar was \$4.45 a share and \$6.50 for PCA last August when the merger agreement was formulated.

Equipment Data Circulated

The Air Transport Association is distributing to aircraft and equipment manufacturers detailed recommendations by an ATA committee subcommittee on passenger and cargo handling equipment. A foreword explains that while airline equipment is not required to follow the standards set forth, cooperation of the manufacturing industry is sought in standardization.

Canadian Survey Covers Air Traffic Possibilities

A survey of traffic partitioning throughout Canada, collected for the Canadian Air Transport Board, Ottawa, as a guide in making air transport company licenses, has been issued by the Air Development Branch of the Canadian Department of Reconstruction and Supply, Ottawa.

The nearly 400-page book, Inter-Community Travel Survey, is of value to municipalities interested in

increasing tourist trade, to airlines and future airline operators, as well as to the travelling public.

Cover 112 Cities—The survey covers 117 airports in the Dominion, with data on major industries, chambers of commerce, boards of trade, banks and financial authorities, and tables outlining economic characteristics of such center, population and merchandise sales figures, shipping, hotel accommodations and similar data. The book is bound by the King's Printer, Ottawa, at a cost of \$15.

SHORTLINES

Americans has consummated an agreement with Consolidated Vultee to supply 100 aircraft to the U.S. Coast Guard. Negotiations were delayed by CVA pending divestment of stock holdings in American by The Aviation Corp., of which CVA is a subsidiary.

Delta will reduce air freight charges on certain samples May 19 with a four-fourth increase necessarily to offset expense to the type of shipment.

Delta recently earned from Chicago to Atlanta what it claimed was the lowest air express shipping charge ever to the latter point—\$1.16¢ per telephone.

Mid-Continent operating revenue for March \$160,811 was 72 percent higher than the same month last year.

United, compared with 12,324 in March, 1949, Revenue passengers carried increased 33 percent, and load factor was 78 percent against 65 percent a year earlier.

Northeast Airlines has signed a contract with a Canadian Miss. auto rental agency under which rental services will be provided NRA passengers of over 100 points on the carrier's system.

Pan American recently took over the San Juan and Latin American countries during March was 80 percent higher than the same month a

year ago, for a record of 48,100 passengers.

TWA has revised its schedules to provide increased DC-4 service between Chicago and Washington. DC-4s carrying 4,000 passengers in and out of Washington over the Easter weekend.

TACA negotiations have resulted in elimination of requirements for passports and visas for tourist travel in all Central American Republics except El Salvador. Gratuities were eliminated in all cases. Five TACA enterprises in Central and South America have been named Inter-American Safety Council safety prisons.

TWA had no time for its three Consolidated Eighties at Chicago Midway, April 2 from 85 to 90. One of the planes, added by a twelfth, made the flight recently in 3 hr. 35 min.

United expects to resume continuous sleeper service in September, with 20-hour DC-4s, which in addition to a full passenger load will carry about 100 extra passengers, in service until shortly after Pearl Harbor, estimated 15 months.

Western will move management of its inland division from Cheyenne, Wyo., to Denver, Colo., to serve the Denver and Littleton, Colorado, areas.

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Northeast Preparing For Vacation Trade

Northeast Airlines, in preparation for record summer travel to New England, has recently announced plans for new service to vacation areas, including points on the old Newfound route between Boston, Cape Cod and Nantucket.

Paul F. Culkin, president, states that at least two points on AM-70-Nantucket and Nantucket—will be reconnected, along with 24-25 points now DC-3s by July 1.

Earlier service to Maine also is to be prepared. Operations between New York and Portland, via Worcester and Lawrence, Mass., by passing Boston, and scheduled by May 19 Service to New Bedford, Mass., and Lewiston and Waterville, Me., will also begin shortly.

Within the next few weeks Northeast will add five 65-passenger DC-4s, leased from PCA, to its fleet of nine DC-3s.

Other new service:

American—On May 1, added four nonstop flights between New York and Boston, 2 hr. 55 min. One of the planes, added by a twelfth, made the flight recently in 3 hr. 35 min.

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CAB SCHEDULE

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Petition Asks Delay in Feeder Award

Mountain States Aviation, Inc., Denver, unsuccessful applicant in the Rocky Mountain case (AVIATION NEWS, April 10), has petitioned CAB for a stay in the order granting a feeder line certificate to Ray Wilcox, Inc., allowing the Board's

decision was arbitrary and that the conduct of the case violated veterans' rights.

Harry S. Conkle, Mountain States president, declared that the Rocky Mountain proceeding "was a place where people were allowed to talk over the heads of the Board and unable to participate in the preparation of their case or to appear to give testimony in support of their application." He said further that CAB had refused to give Mountain States officers the opportunity to be heard after their release from the service and prior to the Board's decision, thus being in violation of veterans' rights under Federal law.

Mountain States also asserted that Ray Wilcox, Inc., was granted the certificate "with complete disregard of justice, equity, the regulations and that the Board's decision is capricious, arbitrary and an abuse of its discretionary powers. Should the Board deny its application for reconsideration of the decision, Mountain States intends to take the case to the Federal courts."

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Support for Gael Sullivan

EVIDENCE accumulated rapidly that the ushered-in, little-publicized appointment last October of Gael Sullivan as Second Assistant Postmaster General was one of the most important events in aviation in recent years. Certainly it is the most encouraging development in several years since the last-named did contract cancellation.

Sullivan, theorist to Postmaster General Harrington who appointed him and supports his program, is responsible for a spirited renaissance of an office which had been drained steadily of its vitality during the most crucial years of a vigorous, expanding commercial air transport system. Imagination and enterprise of a few of the Second Assistant's personnel had been held down and discouraged through five years by a complacent and decadent handful of railroad-minded top office holders, whose timidity exceeded any possible temptation they might ever have had to improve public service. They dared not to risk publicity, or to displease other Washington bureaucrats who were just as solidly entrenched behind moldy walls of tradition.

After some six months of skeptical interest in Mr. Sullivan's ability really to do something about his well-voiced ambitions for public service and efficiency, aviation should realize that he is making progress.

He has speeded the airmail, and promises more of it, in more places. He pushes for reduction in airmail postage rates. He presents a program for air parcel post "expressly and in the open." He will push the development of helicopter shuttle services in heavily populated areas and between ships and shore, as rapidly as technical progress allows, and last week at a meeting with airline representatives and department inspectors he launched flying wedges of trained post office investigators who will canvass the nation for ways and means of improving airmail.

Still not resolved generally are the tremendous possibilities for widespread local and regional air service development inherent in Mr. Sullivan's decision to participate in the new route cases before the CAB. The foundation of the Civil Aeronautics Act is development and maintenance of an air transport system which will meet the needs of the national defense, the postal service, and the foreign and domestic commerce of the United States. In the past, new services certified to the CAB by the Army and Navy as necessary to national security have been granted almost automatically by the Board. The Board has made its decisions on the

value of routes to consumers. The Post Office, on the other hand, has seldom taken any important part in new route proceedings since the 1938 act was signed. Mr. Sullivan now promises this lethargy is ended. It now seems likely that he will make certifications to the Board in all future cases—some already heard—and that such recommendations of new routes will virtually create an obligation on the part of the Board to approve them.

Mr. Sullivan has already made enemies in official Washington who will probably continue to circulate reports of defiance and doubt. But they are envious that a progressive, hard-driving Second Assistant Postmaster General would have made a decade ago. He deserves the unanimous support of aviation, and if he can maintain the pace of the past few months, and can attain even a fraction of his long-term objectives, he should be in line for the most notable achievement awards it is possible for this industry to bestow.

High Tribute to Air Power

GEORGE EISENSTEINER's statement of defense planning for the next 18 months represents probably the greatest recognition ever given to air power by an American army chief of staff:

"He placed top emphasis on air power; 'full, free and open-minded' scientific research and a worldwide intelligence service."

"Under current conditions and those of the predictable future, the influence of air power cannot be over-emphasized," he said.

Although calling for utmost progress in research, the chief of staff took an oblique shot at those who would virtually eliminate production of today's military aircraft on the argument that they are obsolescent.

"Any war commencing within the next few years would of necessity initially be fought primarily with weapons now on hand or in production," he made clear. This point Congress would do well to remember as the army and navy present their regular and interim budget requests from time to time.

Looking farther into the future of air power, the general warned that the nation might be attacked by "scarcely destructive missiles . . . discharged from small, well concealed and widely dispersed installations." Similar statements have been made before by air power advocates who could be accused possibly of some prejudice. But coming from the war-time Alfred Commander-in-Chief, and the wartime chief of staff, they assume an unassisted and unprecedented importance to the nation.

Reverend H. Woods

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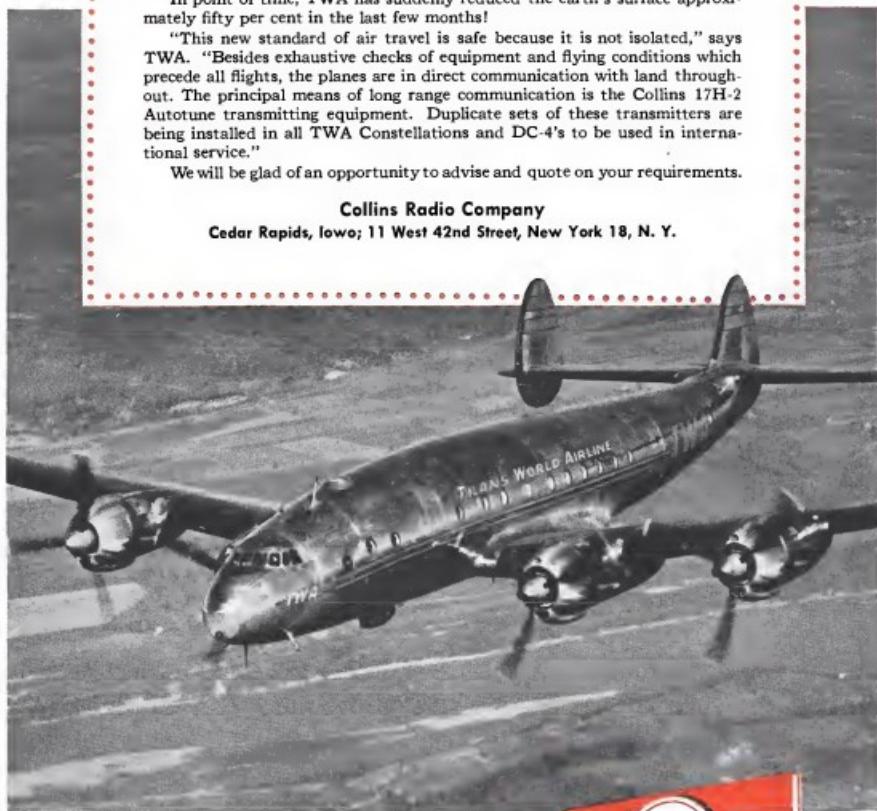
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